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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,027	08/27/2003	Bo-Chy Wang	32961/288301	5118

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EXAMINER

MUROMOTO JR, ROBERT H

ART UNIT	PAPER NUMBER
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3765

MAIL DATE	DELIVERY MODE
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07/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/649,027

Applicant(s)

WANG ET AL.

Examiner

Robert H. Muromoto, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/16/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/4/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8,9, 16-18, 23, 24, 26, 27, 34-36 and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Rau et al., US patent 6,634,590.

The limitations recited in claims 1, 4, and 5, have been cited as well known and conventional practice in the art of yarn feeding to looms by the instant “Background of the Invention”.

The only limitation that is not implicitly disclosed in the “Background” is that the fill yarn be payed out from the outside of the forming package. This limitation is considered to be inherent to the disclosure in the “Background” because if the yarn were not payed out from somewhere “outside of the forming package” then the yarn would not be able to be payed out at all.

Rau discloses a winding configuration for yarn on a bobbin for use in a weaving operation to reduce bobbin pay-out failures due to yarn-on-yarn abrasion and reduce handling.

Rau is “suitable for forming yarns that have little or no twist, typically referred to as zero-twist yarn, which is well known to those skilled in the art (col. 6, lines 65-68).”

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Rau also discloses, "To align and control the deposition of the strand around the barrel of the bobbin 28, the strand is passed through a traveler 36, or traverse, slidably engaged with a ring 40, which in turn is reciprocated along a central axis of rotation 42 of the bobbin 28 as the strand 14 is wound around the bobbin 28 to form the wound package 12 (col. 7, line 35-41)."

This arrangement corresponds to the "at least one payout ring", as recited by instant invention.

Referring to figure 1, the bobbin holder in Rau is coupled to a stand 52 as claimed. The package or bobbin in Rau is vertically oriented as claimed. Rau also discloses an eyelet 24 for guiding a yarn to a further area or device. The claims recite the yarn being guided to a loom. There is nothing structurally that would not allow the yarn in Rau to be led to a loom or any other device.

The payout arrangement in Rau also clearly discloses a payout ring with a diameter larger than that of the package to be formed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 25, 42, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rau in view of Mori US patent 4,959,951.

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Although Rau teaches all of the limitations above, Rau does not specifically state the use of spokes connecting a payout ring to the hub of the device.

However, the use of spokes in the structure of circular mechanical devices is a widely known and conventional practice. Spokes are known to decrease the weight requirement while still providing dimensional stability. As evidence, the examiner has cited Mori. Mori teaches a yarn guide and winding device that uses a ring member with spokes to connect the ring to the hub of the device.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use a ring-hub configuration that utilized spokes to connect the ring to the hub to provide a lightweight yet dimensionally stable connection to the device.

Claims 10-15, 19-22, 28-33, 37-40, 44-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rau.

Although Rau teaches all of the limitations listed above Rau does not specifically teach horizontal orientation of the forming package or the addition of another forming package arrangement having all the same limitations as the first forming package arrangement.

With respect to the horizontal arrangement, absent any criticality or unexpected results arising from the horizontal arrangement, one of ordinary skill in the art could easily determine the proper spatial arrangement of the yarn packages through routine experimentation for a given application.

With respect to the addition of a second yarn package arrangement, the simple addition of another yarn package arrangement cannot be considered an inventive

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concept. To simply add another identical device to increase capacity is a well-known and widely practiced technique in the art of all types of manufacturing. Therefore it would have been obvious to add an additional yarn-packaging device to the overall device to increase the processing capacity of the yarn packaging and feeding device.

Response to Arguments

Applicant's arguments filed 1/05/2006 have been fully considered but they are not persuasive.

Applicant argues that the claims recite so-called, "outside payout". This argument is incorrect. The claim does not recite "outside payout". The claim recites, "paying out the yarn from the outside of the package..."; and in instant remarks applicant admits that "paying out from the outside" is indeed inherent to any type of payout. If applicant intends the claim to encompass the specially defined term, "outside payout", then the claim language should include the exact term applicant has given said special definition.

Applicant also argues that the claims eliminate the bobbin winding step. This argument is incorrect. The claims are drafted in open or comprising format. Also there is nothing in the claims in the form of a negative limitation stating that no bobbin winding exists.

Also applicant argues that references to bobbin in Rau automatically excludes Rau from anticipating instant claims. The examiner disagrees. The Rau patent is drawn to a device for forming yarn packages. This yarn package is clearly shown to be able to go straight to the loom and as cited in the rejection above discloses many of the

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claimed structural and functional limitations of the instant invention. The yarn package in Rau could be referred to as a forming package or a bobbin or a yarn package, etc.

The term bobbin does not imply any preceding method or process. The term bobbin is defined as, " A spool or reel that holds thread or yarn (Merriam Webster Online dictionary)." The reference to the yarn package on a bobbin in Rau can correspondingly be referred to as a "forming package".

Comments with regards to Re-opening of prosecution

The TC 3700 ordered reopening of prosecution of this case in regard to processing and functional characteristics in claims. These limitations are all considered within the scope of the teachings of the reference above. Since all structural limitations are taught it follows that the recited functions would also be provided by the yarn holding means recited in the reference. Nothing in the reference precludes the use of the yarn holding means taught to be used in the specific yarn processing functions claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert H. Muromoto, Jr. whose telephone number is 571-272-4991. The examiner can normally be reached on 8-530, M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Welch can be reached on 571-272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bobby Muromoto
/Bobby Muromoto/
Patent examiner (partial signatory authority)
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June 21, 2007